

BLENDER 3D

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Blender is a professional free and open source software for creating three-dimensional computer graphics, which includes tools for modeling, animation, rendering, post-processing and editing video with sound, layout using Node Compositing, as well as for creating interactive games. Currently, it is the most popular among free 3D editors due to its fast and stable development, which is facilitated by a professional development team. A characteristic feature of the Blender package is its small size compared to other popular 3D modeling packages.

The existence of this program proves once again that free does not mean bad. Creating an application for 3D modeling and animation is an incredibly difficult task. And if we add to this that the developer will not receive any remuneration for such a titanic work, except for the thanks of 3D artists, it would seem that creating a free professional 3D graphics editor is impossible. Nevertheless, the Blender project was not only born, but also actively developing, not yielding to anything commercially similar. The secret of success lies in the fact that anyone can join the work on Blender. Many of the tools that appeared in this program were added by completely different people who created certain functions to solve their problems. However, in fairness it should be noted that Blender began as a commercial project, but was later closed and revived with open source.

Compared to commercial development, the size of this editor is quite scanty-only a few tens of megabytes.

One of the main advantages of the program is cross-platform. Blender works equally well and consistently on Linux and Windows. In addition, the program can operate even on PCs with very weak configurations, even netbooks. The minimum system requirements are more than modest: a single-core processor operating at 1 GHz, 512 MB RAM, and a graphics card with Open GL support and 64 MB RAM.

The program includes a large arsenal of tools for creating three-dimensional graphics. So, in Blender, you can operate with particle systems, control the weights of individual particles during texturing, use guides during animation, and use external forces, such as wind.

In addition, the program has a fluid simulator, which opens up enormous opportunities for the user to create effects of flowing bodies, such as smoke or liquids. In real-time, the user can calculate physical problems, for example, simulate the behavior of soft bodies. The program allows you to edit NURBS-surfaces, use metabolites and customize the snap of characters

Conclusion: Blender is a fast growing tool even now. Even-though it does come with limitations such as the user interface, there are a large quantity of free tutorials available to help you understand the basic and advance control of Blender.

References

[1] Wikipedia. Blender(software) [Электронный ресурс]. – Режим доступа к ресурсу: [https://en.wikipedia.org/wiki/Blender_\(software\)](https://en.wikipedia.org/wiki/Blender_(software))

[2] Habr. Blender3D [Электронный ресурс]. – Режим доступа к ресурсу: <https://habr.com/post/136350/>